

**Field Change Order Number: 00-AS800 F001**  
**Field Change Order Name: ASR800 Combo Slot –12v issue**  
**Customer Document Number: EK-COR64-CL**



## Field Change Order Instructions

### **Applicability:**

AlphaServer 800 systems shipped from March 17, 1997 through January 31, 1998, with a 54-24803-01 main logic module revision of J04 or earlier, or with a 54-24803-02, main logic module with an A01 revision.

### **Problem Statement:**

The combo slot of the AlphaServer 800 system module is wired incorrectly. The 64-bit connector pin that should be providing –12volt is actually providing +12volts. Only options that require –12volts are susceptible to damage in this slot.

In addition to correcting the combo slot issue, two additional AlphaServer 800 issues will be addressed with this FCO. The Remote Management Console can get into a lock-up state where no characters typed on the terminal connected to COM1 can be passed to the system. An intermittent condition exists with the OCP, pressing the OCP reset button can cause the system to power off.

### **Symptom:**

The Combo PCI slot, the -12volt Pin B01 on J12 of the system module 54-24803-01/02 is connected to +12volts. Electrical damage will occur to PCI options requiring –12volts if they are installed in the Combo slot. This condition does not pose a product safety hazard.

The COM1 serial port on the AlphaServer 800 (system module) systems may hang due to the Remote Management Console's microprocessor locking-up and not passing characters to and from the terminal and system. A complete AC power removal is required to reset the microprocessor and clear the lock-up condition.

Pressing the reset switch on the OCP of AlphaServer 800 intermittently causes the system to power down requiring the OCP power switch to be cycled to restore power.

### **Solution:**

The FCO should be administered per the customers request, or at the next scheduled service call. Replace system board, 54-24803-01 with revision L04 or higher or replace 54-24803-02 with revision C01 or higher.

As required, replace customers damaged PCI option card, providing damaged to the card was due to the system board combo slot –12v issue. Reference Action Blitz TD 2412 – AlphaServer 800 combo slot issue, for information on obtaining an account number and cost center number for replacing the damaged PCI option.

**Solution (continued):**

Replace OCP module, 54-24978-01 with revision C01 or higher.

System revision labels are included in the EQ-kits. Upon completion of the FCO, the following system packages should have the Rev. B label affixed next to the rear system label.

PB80B-xx, PB80C-xx, PB80D-xx, PB80P-xx  
PB81B-xx, PB81D-xx, PB81P-xx  
PB82B-xx, PB82C-xx, PB82D-xx, PB82P-xx, PB82S-xx

The following system packages should have the Rev C. label affixed next to the rear system label.

PB80B-MD, PB80C-AA/AB/FA, PB80P-MA/MB/MC/MD  
PB80S-AA/AB/MA  
PB81C-XX, PB81B-Mx, PB81P-Mx, PB81S-xx, DJ-SSNE5-AA

**Additional Information:****Quick Check:**

AlphaServer 800 systems with a Revision B or greater, affixed to or located next to the rear system label does not require the FCO to be administered. Systems with a Revision A or without a system Revision label will require the FCO.

**Pre/CO-Requisite:** N/A

**Mean Time To Install:** One Hour

**Tool/Test Equipment:** Philips Screwdriver

**Field Change Order Parts Information:**

FCO KIT Number	DESCRIPTION OF CONTENTS
EQ-01765-01 or -02	AlphaServer 800 FCO kit, 00-AS800 F01
54-24978-01	Module, Operating Control Panel
54-24803-01 or -02	Module, Main logic board
36-50136-01 and -02	Revision B or Revision C labels
FA-05100-01	DIGITAL Field Change Order Instructions

**Special Instructions:** None

**Installation Procedure:**

For pictorial instructions, reference AlphaServer 800 Service guide, EK-ASV80-SG. Chapter seven, FRU Removal and Replacement.

**Accessing FRUs, Pedestal systems**

- 1) Perform an orderly shutdown of the operating system.
- 2) Set the On/Off button on the operator control panel to off.
- 3) Unplug the AC power cord.
- 4) Unlock and open the front door.
- 5) Remove the retaining screw indicated by the yellow label on the lower left side of front of the system.
- 6) Slide back and remove left side panel.
- 7) Slide back and remove top and right side panel.

**Accessing FRUs, Rackmount systems**

**Warning:** *The system can weigh 27.45 kg (61 lb.). To prevent injury and equipment damage, ensure that only one system is extended out of the cabinet at any one time and that the cabinet is stabilized before pulling the system out on its slides.*

- 1) Perform an orderly shutdown of the operating system.
- 2) Set the On/Off button on the operator control panel to off.
- 3) Unplug the AC power cord.
- 4) Pull off the front bezel using the two finger holds.
- 5) Remove the two front screws.
- 6) Slide the enclosure out on its rails.
- 7) Remove the retaining screw indicated by the yellow label on the upper left side of the front of the system.
- 8) Slide back and remove the top cover.

**Operator control panel module removal**

- 1) Disconnect control panel cable.
- 2) Remove control panel module.
- 3) Replace control panel module and reconnect control panel cable.

### System motherboard removal

- 1) Record the position of PCI and EISA options.
  - 2) Remove PCI and EISA options.
  - 3) Remove the CPU daughter card.  
**Warning:** *CPU and memory modules have parts that operate at high temperatures. Wait 2 minutes after power is removed before handling these parts.*
  - 4) Remove DIMM memory.
  - 5) Remove airflow baffle from the motherboard.
  - 6) Detach motherboard cables; remove screws, and motherboard.
  - 7) Move the socketed NVRAM chip (E14) and NVRAM TOY chip (E78) to the new motherboard and set the jumpers to match previous settings.  
*NOTE: the NVRAM TOY chip contains the os\_environment variables. This environment may need to be reset (reference section 6.1.4.4 of the AlphaServer 800 service manual).*
- 1) Install new motherboard; reattach cables and airflow baffle.
  - 2) Install CPU daughter card and DIMM memory options.
  - 3) Install PCI and EISA options in their previous positions.
  - 4) Replace panels, cover and bezel.
  - 5) Plug in AC power cord.
  - 6) Power on system and verify configuration and functionality of the system.

**C A U T I O N :** Use ALL ESD safety precautions to prevent DOA's on material in kit. The module, as with all modules, contain electrostatic discharge sensitive devices (ESDS). The use of the Velostat Kit or ESD module box is essential to prevent damage, which may not be noticed immediately.

DATE: March 9, 1998

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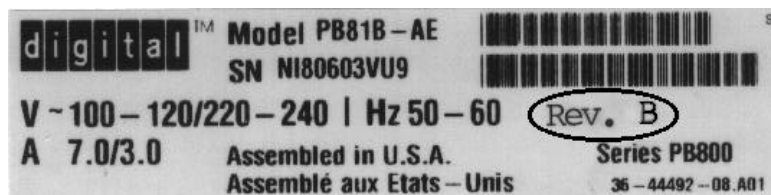
Subject: AlphaServer 800 64-bit PCI slot restrictions

Dear Customer,

Digital has determined that a condition exists in the AlphaServer 800 system module which affects the 64-bit PCI option slot #14 (J12) that may cause electrical damage to some 32-bit and 64-bit PCI option modules, or other devices that are installed into that slot. The 64-bit PCI connector pin that should be providing the option module with -12 volts is actually supplying +12 volts. Only options that require -12 volts are susceptible to damage in this slot and most options do not use this connector pin. To date, Digital has not received any reports of such damage. This condition does not pose a product safety hazard, and all other PCI and EISA option slots in the AlphaServer 800 are unaffected.

Digital has redesigned the system module to correct the problem and our manufacturing plants are now shipping only AlphaServer 800 systems that have this design change implemented. You can quickly determine if your system is affected by reading the revision of the system on the model number label on the back of the system enclosure. The systems that have had this problem corrected are marked with a Revision B or later. An example of the Revision B system label is shown in Figure 1 (see oval; the location of the revision text may vary). Any system that does not have a revision letter on the label is considered a Revision A and is affected by this problem.

Figure 1



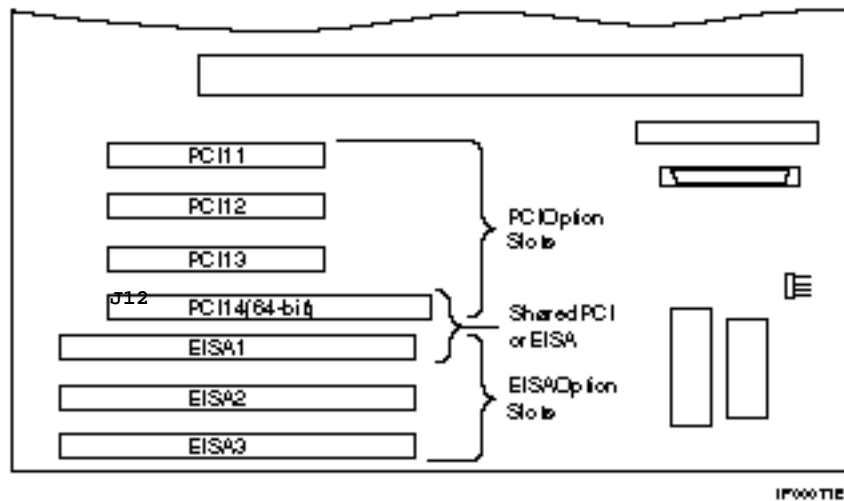
There are two variations of the system module impacted.

- The 54-24803-01 variation with revisions beginning with letters Axx through Jxx have this condition. Revisions beginning with letter Kxx or later have been corrected. (The 'xx' field is a two digit number and a non-critical part of the revision information).

- The 54-24803-02 variation with a revision of Axx have this condition. Revisions beginning with letter Bxx or later have been corrected.

We suggest that as a precautionary measure, customers apply a piece of non-conductive tape across the top of the 64-bit PCI slot to inhibit installation of option modules. The affected 64-bit PCI slot can be identified by the legend “J12” marked adjacent to the 64-bit PCI connector on either variation of the system module. See Figure 2 below.

**Figure 2**



## MODULES AT RISK

To date, the known options that may **not** be installed in the 64-bit PCI slot with earlier revisions include:

**Table 1**

<u>Digital Option Number</u>	<u>Description</u>
AV301-AA/AN	32-BIT FULL MOTION VIDEO
AV321-AA/AN	32-BIT FULL MOTION VIDEO USING JPEG
KFPRA-AA/AB	ETHERPLEX ADAPTER
PBXDA-AA/AB/AC	32-BIT ASYNCHRONOUS COMMUNICATIONS ADAPTER

Any of the modules listed in Table 1 may be installed into the other system PCI slots without risk. In the event you need to install one of the PCI options listed in Table 1 above into slot #14 or you would like the system module replaced, Digital will replace it at no cost to you if you contact your Digital Customer Support representative at the phone number listed in your Digital Warranty Terms and Conditions document. Digital will replace your system module as soon as possible beginning in April 1998. Requests for this module replacement must be received by Digital no later than January, 1999. When contacting Digital, reference the Field Change Order number:  
00-AS800 F001.

## MODULES NOT AT RISK

To date, Digital qualified PCI options that may be installed in this 64-bit PCI slot and are not affected by this condition are listed in Table 2. A current database listing all options and their status can be accessed on the world wide web at:

[http://www.digital.com/info/alphaserver/tech\\_docs/alphasrv800/docs/supported\\_options.html](http://www.digital.com/info/alphaserver/tech_docs/alphasrv800/docs/supported_options.html)

**Table 2**

<u>Digital Option Number</u>	<u>Description</u>
CCMAA-AA/BA	MEMORY CHANNEL ADAPTER - SINGLE PORT
DJ-ML200-AA/BA/CA	NVRAM MEMORY
DE450-CA	ETHERNET (TW, TP, AUI)
DE500-AA	FAST ETHERNET (10/100)
DEFPA-AB/DB/UB	FDDI BUS ADAPTER
DGLPB-AB	ATM ADAPTOR
KFPSA-AA	SINGLE DSSI STORAGE ADAPTER
KZPAA-AA	SCSI BUS ADAPTER
KZPAC-AA/CA/CB	1 CHANNEL SCSI RAID CONTROLLER
KZPBA-CA	SINGLE CHANNEL ULTRA-SCSI ADAPTER
KZPDA-AA	FAST WIDE SINGLE END SCSI2 ADAPTER
KZPSA-BB	SCSI (FWD) HOST ADAPTER
KZPSC-AA/BA	SINGLE CHANNEL RAID CONTROLLER
PB2GA-JA/JB/JC/JD	TRIO64 PCI 2MB GRAPHICS ACCELERATOR
PBXDP-AA/AB/AC/BA/CA	2 PORT SYNCHRONOUS CONTROLLER
PBXGB-AA/CA	2MB GRAPHICS ACCELERATOR
PBXNP-AA	TOKEN RING NETWORK ADAPTER

On behalf of Digital, I wish to thank you for your patience and cooperation in this matter, and I apologize for any inconvenience. We are committed to do whatever it takes to ensure total Customer Satisfaction with Digital.

Sincerely,



Jack Zemcik  
AlphaServer Products Engineering Manager

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Document number: EK-COR64-CL A01